$ K + ASR-9 TWX No. 6017

SUPERCEDED BY: TWX-ASR9-6019, and TWX-ASR9-6021
RELATED TOPICS:
Antenna/Waveguide Component Subsection

TO: ALL AIRWAY FACILITIES DIVISION MANAGERS (EXCEPT ALASKA)

ATTN: AIRWAY FACILITIES SECTOR MANAGERS

SUBJ: SECURING THE ANTENNA IN HIGH WIND CONDITIONS

TWX: TWX-ASR9-6017

DATE: 7/11/96

IF WINDS IN EXCESS OF 85-KNOTS ARE ANTICIPATED, THE ANTENNA SHOULD BE SECURED TO PREVENT DAMAGE. SEVERAL REQUIREMENTS MUST BE CONSIDERED IN ADVANCE OF THE TIME OF NEED. THEY ARE: INSTALLATION OF CABLE ATTACHMENT HARDWARE ON THE ANTENNA REFLECTOR, INSTALLATION OF TOWER ANTENNA TIE-DOWN ANCHORS, AND FABRICATION OF SUITABLE TIE-DOWN CABLES.

IF THE ANTENNA HAS BEEN SUBJECTED TO 75-KNOT WINDS AT ANY TIME SINCE THE LAST BEARING CHANGE, USE NEW GEAR\BEARING HOLDDOWN BOLTS AS DIRECTED IN TI MANUAL 6310.30 PARAGRAPH 7.5.1.4.

ACTION: IT IS THE RESPONSIBILITY OF EACH SITE TO FABRICATE, AND HAVE ON HAND, THE TIE-DOWN CABLES AS DIRECTED IN TI MANUAL 6310.30 PARAGRAPH 3.7. ANY SITE SUBJECTED TO WINDS OVER 75-KNOTS SHOULD CHECK THE ROTARY JOINT AND FOLLOW THE GEAR\ BEARING HOLDDOWN BOLT REPLACEMENT AS DIRECTED IN TI MANUAL 6310.30 PARAGRAPH 7.5.1.4.

IF YOU HAVE ANY QUESTIONS CONCERNING THIS MESSAGE, PLEASE CONTACT CHRISTINE McKENNA, AOS-520, AT (609) 485-HELP.

EDWARD J. SCHUMAN
MANAGER, NATIONAL DATA COMMUNICATIONS
SYSTEMS ENGINEERING DIVISION, AOS-500

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SUPERCEDED BY: TWX-ASR9-6021
Antenna/Waveguide Component Subsection

TO: ALL AIRWAY FACILITIES DIVISION MANAGERS (EXCEPT ALASKA)

ATTN: AIRWAY FACILITIES SECTOR MANAGERS

SUBJ: ASR-9 ANTENNA TIE-DOWN PROCEDURE

TWX: TWX-ASR9-6019

DATE: 9/5/96

SINCE TWX-ASR9-6017 WAS WRITTEN, LINCOLN LABS HAS DONE ANTENNA TESTS AND CONCLUDED THAT THE ASR-9 ANTENNA SHOULD BE ALLOWED TO FREE-WHEEL IN WIND SPEEDS GREATER THAN 85 KNOTS, EXCEPT UNDER THE FOLLOWING CONDITIONS:

1) THE JACKSCREWS HAVE NOT BEEN TIGHTENED AND/OR HAVE NOT BEEN INSPECTED PER TWX-ASR9-5020.
2) THE ANTENNA PEDESTAL BOLTS ARE LOOSE AND/OR HAVE NOT BEEN INSPECTED PER TWX-ASR9-5020.

LOOSE PEDESTAL BOLTS AND JACKSCREWS WILL CAUSE DAMAGE TO THE ANTENNA IN WINDS GREATER THAN 85 KNOTS IF THE ANTENNA IS NOT TIED DOWN.

IN ADDITION TO ALLOWING THE ANTENNA TO FREE-WHEEL IN WIND SPEEDS GREATER THAN 85 KNOTS, THE ANTENNA SHOULD BE TURNED OFF AND THE ANTENNA CIRCUIT BREAKER IN THE MAIN POWER PANEL SHOULD ALSO BE TURNED OFF.

IF YOU HAVE ANY QUESTIONS CONCERNING THIS MESSAGE, PLEASE CONTACT CINDY ADAMSKYJ, AOS-520, AT (609) 485-HELP.

EDWARD J. SCHUMAN
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SUPERCEDES : TWX-ASR9-6017, and TWX-ASR9-6019
RELATED TOPICS:
Antenna/Waveguide Component Subsection

TO: ALL AIRWAY FACILITIES DIVISION MANAGERS (EXCEPT ALASKA)

ATTN: AIRWAY FACILITIES SECTOR MANAGERS

SUBJ: ASR-9 ANTENNA TIE DOWN PROCEDURES

TWX: TWX-ASR9-6021

DATE:11/08/96

ADDITIONAL INFORMATION HAS BEEN PROVIDED BY LINCOLN LABORATORIES ON THE ASR-9 ANTENNA SYSTEM DURING HIGH VELOCITY WINDS. TWX-ASR-6017 AND TWX-ASR-6019 SHOULD BE REFERENCED. THE ASR-9 ANTENNA TIE DOWN PROCEDURE REFERRED TO IN TWX-ASR-6017 CAN DAMAGE THE ANTENNA IF IT IS NOT PROPERLY INSTALLED. TWX-ASR-6019 RECOMMENDED THE ANTENNA SHOULD BE PERMITTED TO "FREE WHEEL" WITHOUT POWER WHEN WINDS EXCEED 85 KNOTS.

INFORMATION: LINCOLN LABORATORY HAS EXAMINED THE ASR-9 PEDESTAL AND THE ANTENNA JACK SCREW ASSEMBLY THEY HAVE DETERMINED THAT THE DESIGN IS SUFFICIENT TO SUSTAIN WIND LOADS THAT THE TIE DOWN PROCEDURE WAS TO PROTECT THE ANTENNA SYSTEM AGAINST (85 TO 130 KNOTS). HOWEVER, ANALYSIS OF THE SAIL (REFLECTOR) AND BOX BEAM IS NOT COMPLETED AND ITS SURVIVAL BETWEEN 85 KNOTS AND 130 KNOTS "FREE WHEELING" IS NOT KNOWN AT THIS TIME. WITH THIS INFORMATION STILL PENDING THE RECOMMENDATION WILL STILL BE TO ALLOW THE ANTENNA SYSTEM TO "FREE WHEEL",WITHOUT POWER, AT WINDS ABOVE 85 KNOTS. THE PROCEDURE REFERENCED BY TWX-ASR-6017 COULD DAMAGE THE ANTENNA IF NOT CORRECTLY INSTALLED. WHEN ADDITIONAL INFORMATION IS RECEIVED IT WILL BE TRANSMITTED VIA TWX TO THE FACILITIES.

IF THERE ARE ANY FURTHER QUESTIONS PLEASE CONTACT BRIAN HIGGINS, AOS-520, AT (609) 485-HELP.

EDWARD J. SCHUMAN
MANAGER, NATIONAL DATA COMMUNICATIONS
SYSTEMS ENGINEERING DIVISION, AOS-500

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